

REMARKS

Claims 1 and 3-8 remain in this application.

Claim Rejections Under 35 USC §103(a)

Applicant, upon review of the Examiner's maintained rejection under section 103(a), has amended claims 1 and 8 to more clearly define patentable subject matter over all the cited references, whether considered separately or in combination with one another, where proper. In view of the clarifying amendment, Applicant respectfully believes that the rejection should be withdrawn, and the claims allowed.

Claim 1, as amended, calls for a preparing mixture of PTFE resin powder and a susceptor material. Then, feeding the mixture into a compaction zone to at least partially compact and shape the mixture, and providing a continuous flow of the mixture from the compaction zone to a heating zone and heating and sintering the mixture within the heating zone by exciting the susceptor material by application of wave energy and drawing a vacuum directly on the mixture downstream from the compaction zone and within the heating zone while sintering the mixture to extract air from the mixture.

The Examiner looks to Windeler to provide one of the missing steps, i.e. drawing a vacuum within the heating zone while sintering a mixture (not specified as a PTFE mixture). Applicant acknowledges that Windeler discloses drawing a vacuum on the exit of vents 35a which are located prior to the heating zone B. However, this does not correspond to drawing a vacuum on the material. All that is disclosed is drawing a vacuum on the vents, which is done to ensure the vents remain unblocked from any polymer that may exude through the holes 35 (Col. 2, line 58-Col. 3, line 2). In addition, Applicant notes that the disclosure of Windeler does not make reference to vacuum ports, but rather, vent holes. The "venting" occurs as a result of a positive pressure established in the barrel 27 by the ram 21, and thus, Applicant further contends that a vacuum pressure within the barrel 27 does not exist at all. With this, Applicant does not concur with the Examiner's submission that the vacuum drawn on the vents 35a would impact the material within the barrel 27 at all, let alone all material interconnected by drawing a vacuum on the vents. Accordingly, Applicant does not agree that a vacuum would be drawn "within" the heating zone B while heating the mixture as surmised by the

Examiner. Regardless, to further define over the process of Windeler, Applicant has further clarified application of the vacuum directly on the mixture downstream from the compaction zone. This is not taught or otherwise suggested by the disclosure of Windeler. To the contrary, Applicant notes that Windeler expressly teaches "only the preform zone" having a plurality of vent holes (Claim 1). As such, any vacuum that may result in Windeler is not drawn directly on the material within the heating zone B. Lastly, Applicant contends that any possible source of vacuum occurring within the preform zone A would be prevented from reaching the heating zone B as a result of the polymer material being coalesced into the solid rod 29.

The Examiner then looks to combine the method of Thorsrud with Windeler, stating that it would have been obvious to incorporate the method of Thorsrud into that of Windeler, and further that Adams would motivate one to make the combination of Thorsrud with Windeler because of the desirable aspects of dielectric heating in a molding process. However, given the above analysis of Windeler, Applicant respectfully believes this combination to be moot, as it still fails to arrive at Applicant's inventive process. Accordingly, in view of the clarifying amendment, and points noted above, Applicant contends that the rejection has been traversed and respectfully believes that the rejections should be withdrawn.

Accordingly, Applicant believes amended claim 1 to define patentable subject matter and to be in proper condition for allowance. Such action is respectfully requested.

Claims 3, 4 and 7 depend directly on amended claim 1, and thus, are believed to define patent subject matter for at least the same reasons and to be in proper condition for allowance. Such action is respectfully requested.

Claim 8 has likewise been amended to further clarify patentable subject matter over all the cited references, whether considered separately or in combination with one another, where proper. As amended, claim 8 recites a method of fabricating a PTFE including preparing a mixture of PTFE resin powder and a susceptor material; compacting the mixture, and sintering the mixture by exciting the susceptor material with microwave energy. Further, the method includes drawing a vacuum directly on the compacted mixture during the sintering step to extract air from the mixture after the compacting step. Accordingly, for at least the same reasons stated in support of amended

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claim 1, amended claim 8 is believed to define patentable subject matter and to be in proper form for allowance. Such favorable action is respectfully requested.

It is believed that this application now is in condition for allowance. Further and favorable action is requested.

The Patent Office is authorized to charge or refund any fee deficiency or excess to Deposit Account No. 04-1061.

Respectfully submitted,

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Date

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